

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Work Order ID 138813

138813

Page 2

November 12, 2015 1:42:35 PM

Item ID: D212-725-1-109

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Engine Mount Deck Fitting

Stop ***NS2***

Start Date: 11/12/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 12/23/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130 QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

B.O 15/12/03

4

0

DAS
08
9-89

140

Outsource process-Cadplate per QSI017 4.1.9.1

0.00

140

Outsource3

Memo

0.00

Outsource process - Cad plate

Issue P/O: 30643 Cad Plate per QQ-P-416F Class I Type
IIConformity sheet required

CZ

DEC 03 2015

4

150

Receive & Inspect for Damage & Mat'l Certs

0.00

150

Packaging

Memo

0.00

Packaging

Ensure certificate of conformity is attached

4X SP15-12-10

DQA: _____ Date: _____



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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 138813***138813***

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November 12, 2015 1:42:35 PM

Item ID: D212-725-1-109

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Engine Mount Deck Fitting

Stop ***NS2***

Start Date: 11/12/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/23/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC3 Inspect Part Finish	0.00							DAS 38 9-89
160	QC3 <i>QC7</i>					<u>(4)</u>			DEC 10 2015
QC	Memo	0.00							
Quality Control									
170	Identify as per dwg & Stock Location: <i>St SF3</i>	0.00							
170						<u>4</u>			
Packaging	Memo	0.00							DEC 15 2015
Packaging									
180	QC21- Final Inspection - Work Order Release	0.00							
180									DEC 15 2015
QC	Memo	0.00				<u>ML5</u>			
Quality Control									

ML5 DEC 15 2015

DQA: _____ Date: _____

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Picklist Print

November 12, 2015 1:42:39 PM

Work Order ID: 138813

138813

Parent Item: D212-725-1-109

D212-725-1-109

Parent Item Name: Engine Mount Deck Fitting

Start Date: 11/12/2015

Required Date: 12/23/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 06-12-19 JLM
IPP Rev:B Added Cad Plating 07-07-23 Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M4140N- B1.500X1.5000		Purchased	No				f	11.0160		0.315789			

M4140N-B1 500X1 5000

11-15-25

4140 Steel Bar 1.50 x 1.50

Location

Loc Qty

Loc Code

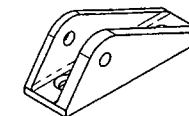
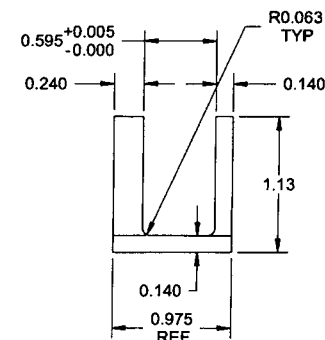
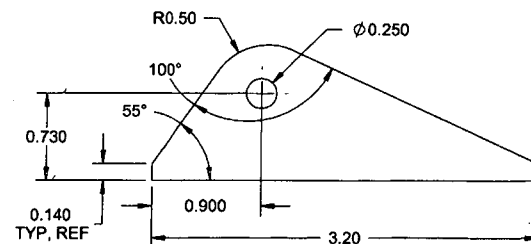
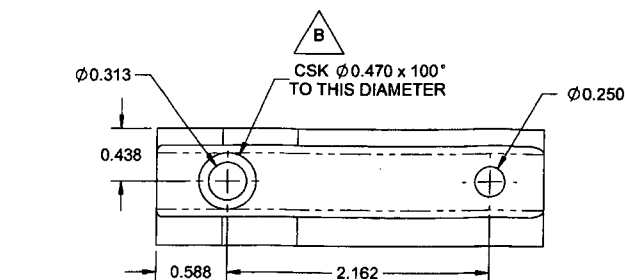
MAT034

11.016

m127137

11.016

1.15



NOTES:

- 1) MATERIAL: AISI 4140 STEEL BAR
PER MIL-S-5626 OR AMS 6382/6349/6529
REF DART SPEC. M4140N-B
OR AISI 4130 STEEL BAR
PER MIL-S-6758 OR AMS 6345/6348/6370/6528
REF DART SPEC. M4130N-B
HEAT TREAT TO MIN. ULTIMATE TENSILE STRENGTH = 125 ksi
- 2) FINISH: CADMIUM PLATE PER AMS-QQ-P-416B, CLASS I, TYPE II
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.30 lbs

D212-725-1-109 SMALL ENGINE MOUNT, LH

20151112

SH 138813

B	CSK 0.470 x 100° WAS 0.446 x 45° CHAMFER (ZN D5-1, D5-2)	RF	12.05.29
A	NEW ISSUE	RF	11.02.24
REV.	DESCRIPTION	BY	DATE
DESIGN	JL		
DRAWN	RF		
CHECKED	RF		
MFG. APPR.	RF		
APPROVED	RF		
DE APPR.	RF		
DATE	12.05.29		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4231** REV. B
SHEET 1 OF 3
TITLE **ENGINE MOUNT** SCALE NTS

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DART AEROSPACE LTD		Work Order: 138813
Description: Small Engine Mount LH	Part Number: D212-725-1-110	109 SK
Inspection Dwg: D212-725-1 Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.730	+/-0.010	0.729	✓		Caliper	JHC-01
R0.50	+/-0.030	R0.50	✓		rad g	Shop
Ø0.250	+0.005/-0.001	0.251	✓		caliper	JHC-01
3.20	+/-0.030	3.203	✓		"	"
0.900	+/-0.010	0.903	✓		HB	3boul
0.14	+/-0.030	0.14	✓		caliper	JHC-01
55°	+/-0.5°	55°	✓		ang g	Shop
100°	+/-0.5°	100°	✓		"	"
0.240	+/-0.010	0.240	✓		MIC 0-1	JHC-02
R0.063	+/-0.010	R0.063	✓		rad g	Shop
0.140	+/-0.010	0.136	✓		MIC 0-1	JHC-02
1.13	+/-0.030	1.136	✓		Caliper	JHC-01
0.140	+/-0.010	0.140	✓		MIC 0-1	JHC-02
0.975	+/-0.010	0.972	✓		"	"
0.595	+0.005/-0.000	0.597	✓		Plat Cal	Shop + JHC-01
0.313	+0.006/-0.001	0.314	✓		Caliper	JCL-08
0.470 x 100°	+/-0.010	0.480	✓		"	
0.250	+0.005/-0.001	0.251	✓		"	
0.438	+/-0.010	0.437	✓		"	
0.588	+/-0.010	0.587	✓		"	
2.162	+/-0.010	2.162	✓			

DAS

Measured by: 45/989	Audited by: DAS 08 9-89	Prototype Approval: N/A
Date: 2015-12-01	Date: 15/12/03	Date: N/A

Rev	Date	Change	Revised by	Approved
A	07.09.06	New Issue	KJ/JLM	E



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO30643**

Purchase Order Date 12/3/2015

PO Print Date 12/3/2015

Page Number 1 of 2

Order From :

GROUP ALTECH
2455 HALPERN

ST LAURENT, MONTREAL H4S 1N9

VC-ALT01

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAXED

Contact Name

Vendor Phone 514-355-3666

Ship To Contact

Ship To Phone

Ship Via: FedEx PI ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
----------	--	------------------------	--------------------------------------	----	--------------------------------	---------------	----------------

1	138814	D212-725-1-110 ENGINE MOUNT	12/11/2015		4.00	\$36.88	\$147.50
			Yes 12/11/2015				

Cad Plating is to be done per QQ-P-416F Class I Type II.

PLEASE NOTE: HYDROGEN ENDBRITALEMENT IS INCLUDED IN PRICING PER UNIT

Line Total: \$147.50

2	138813	D212-725-1-109 ENGINE MOUNT	12/11/2015		4.00	\$36.88	\$147.50
			Yes 12/11/2015				

Cad Plating is to be done per QQ-P-416F Class I Type II.

PLEASE NOTE: HYDROGEN ENDBRITALEMENT IS INCLUDED IN PRICING PER UNIT

Line Total: \$147.50

SP15-12-10.

Note:

12/3/2015



2455, Halpern, Saint-Laurent, QUÉBEC, H4S 1N9
Tel.:(514)335-3666 Fax.:(514)335-3868
Internet : www.groupaltech.com

**Bon de livraison / Packing Slip
et / and
Certificat de conformité / Certificate of Compliance**

Bon-Livraison / Pk.Slip # : 114462-1 09/12/2015
Bon-Commande. / W.Order # : 114462
Client P.O. # : 30643
Transport :

Envoyé à / Ship to

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY
ONTARIO, CANADA K6A 1K7

Commandé par / Order by

DART AEROSPACE LTD (1427)
1270 ABERDEEN STREET
HAWKESBURY
ONTARIO, CANADA K6A 1K7

#	No. Job No. Réf	NoSerie / Part Number Nom Produit / Product	Traitement Process	Poids Weight	Qté Qty	Envoyé Sent	A ventr BO
1	UNIT 138814	D212-725-1-110 Rev. ENGINE MOUNT	CADMIUM YELLOW PER QQ-P-416F TY:2 CL:1	0.00	4	4	0
2	UNIT 138814	D212-725-1-110 Rev. ENGINE MOUNT	HYDROGEN ENBRITAMENT RELIEF (BAKE)	0.00	4	4	0
3	UNIT 138813	D212-725-1-109 Rev. ENGINE MOUNT	CADMIUM YELLOW PER QQ-P-416F TY:2 CL:1	0.00	4	4	0
4	UNIT 138813	D212-725-1-109 Rev. ENGINE MOUNT	HYDROGEN ENBRITAMENT RELIEF (BAKE)	0.00	4	4	0

Notes Additionnelles / Additional Notes

**Epaisseur réelle
Actual Thickness**

**Inspecteur Qualité
Quality Inspector**

**Réçu par
Received By**

PP

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
Our financial and legal responsibility will not be higher than the amount of invoice.